12.0 ABSTRACT

Human cadaver tissues have been used for many years to replace tissues in the body. These replacements not only include such well known organ transplants such as the heart and kidneys, they also involve soft tissue grafts such as tendons and arteries, and hard tissue grafts such as bone. It is desirable for these tissue grafts to be cleaned and sterilized. The basic technology to be utilized for this audible acoustic tissue cleaning process is the use of sound in a range audible to the human ear (20 Hz to 20,000 Hz) to provide the cleansing force necessary to clean and sterilize tissue grafts to be implanted into the human body. Another use of this technology is to clean and treat contaminated bone fragments from compound fractures. Another aspect of this audible acoustic tissue cleaning process is the use of relatively pure oxygen (50 to 100%) under pressure to treat the tissue grafts at 2 to 10 degrees Celsius.